

SOV/180-59-3-13/43

The Connection between Softening During Removal of Cold Work and
Temperature Softening of Nickel Alloys

5 German and 6 Soviet.

SUBMITTED: October 24, 1958

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24589

S/137/61/000/005/043/060
A006/A106

18 7500

AUTHORS: Blanter, M. Ye.; Kuznetsov, L. I., and Metashop, L. A.

TITLE: Softening and recrystallization processes in iron and nickel alloys

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 5, 1961, 35, abstract 5Zh26
("Metallovedeniye i term. obrabotka metallov" [Tr. Sektsii metallo-
ved. i term. obrabotki metallov. Tsentr. pravl. Nauchno-tekhn. o-va
mashinostroit. prom-sti, no. 2] Moscow, 1960, 3-11)

TEXT: The authors analyze some problems connected with the investigation of the effect of alloying elements on recrystallization processes in Fe and Ni base alloys. The effect of alloying on softening of preliminary cold deformed alloys during heating was studied on binary Ni alloys (with Cr, W, Mo, Al, Ti and Co) and manganous austenite (G13 type) additionally alloyed with Ni, Co, Cr, W and Mo. It is shown that the half softening temperature of Ni-alloys is most increased by W, Cr and Mo and least by Ti, Al and Co. An increase of the degree of plastic deformation from 10 to 38% reduces the degree of stability of the alloys against removal of case hardness. In the case of alloyed austenite the addition of Ni and Co reduces the temperature range of softening; W has a lesser

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effect. The addition of 5% Cr raises the temperature of the beginning and completed softening of austenite by 200 - 300 and 200°C respectively. The mechanism of the effect of various alloying elements on temperature conditions of softening is interpreted on the basis of results obtained by investigating the magnitude of activation energy of recrystallization processes. The foremost part of changes in the energy of interatomic bonds during alloying is stressed. The quantitative connection between the critical temperatures of physical softening (when removing case hardness) and the half softening temperature during the recrystallization of alloys is shown. The investigation of the effect of preliminary case hardening and recrystallization softening on the heat resistant characteristics of austenitic 3W481 (ET481) steel confirmed the well-defined connection between the softening process during recrystallization and the nature of changes in the heat resistance and short lasting stability at higher temperatures.

L. G.

[Abstracter's note: Complete translation]

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ZHERDEV, I.T.; DEKHOV, N.M.; VOLKOV, V.P.; KUZNETSOV, L.I.; DAVATTS, V.N.;
POLYAKOV, I.I.

Structure of the furnace bath in the production of 45-percent
ferrosilicon. Izv. vys. ucheb. zav.; chern. met. 5 no.3:77-87
'62. (MIRA 15:5)

1. Dnepropetrovskiy metallurgicheskiy institut i Zaporozhskiy
zavod ferrosplavov.
(Ferrosilicon--Electrometallurgy) (Electric furnaces)

"APPROVED FOR RELEASE: 06/19/2000

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... this as GR12N4VA1

carburized, while the presence of Si (0.17-0.37%) and Ni (1.0-1.3%) decreases the
the steel to supersaturate its surface layers with carbides. The steel

KUZNETSOV, L.K.

KUZNETSOV, K.F.; KUZNETSOV, L.K.

Rapid general overhaul of an electric furnace. Metallurg no.12:15-
16 D '56. (MLRA 10:1)

1. Pomoshchnik nachal'nika elektrostaleplavil'nogo tsekha no.1 po
oborudovaniya (for K.F.Kuznetsov). 2.Inzhener-konstruktor proyektne-
go otдела, Chelyabinskiy metallurgicheskiy zavod(for L.K.Kuznetsov).
(Chelyabinsk--Electric furnaces)

KUZNETSOV, I.K.

Roller bearings on bridge cranes. Metallurg 2 no.9:40 S '57.
(MLRA 10:9)

1. Inzhener-konstruktor proyektного отдела Chelyabinskogo
metallurgicheskogo zavoda.
(Roller bearings)

KUZNETSOV, L.K.

KUZNETSOV, L.K., inzh.

Letter to the editor. Vest.mash. 37 no.12:65 D '57. (MIRA 10:12)
(Cranes, derricks, etc.)

KUZNETSOV, Leonid Mikhaylovich

[Light at dusk] Svet v sumerkakh. Vladivostok, Primorskoe knizhnoe izd-vo, 1962. 50 p. (MIRA 17:3)

SOV/75-14-4-14/30

5(2)

AUTHORS:

Kuznetsov, L. M., Makarov, Ye. S., Turovtseva, Z. M.

TITLE:

Quantitative Determination of Oxygen in the Lowest Titanium Oxides by Radiographic Analysis

PERIODICAL:

Zhurnal analiticheskoy khimii, 1959, Vol 14, Nr 4,
pp 463 - 465 (USSR)

ABSTRACT:

As the lowest titanium oxides the authors understand the solid solutions of oxygen in α -titanium with the composition $TiO_{0.4}$ 0.42. Radiographic analyses of these compounds (Refs 1,2) show a steep course of the curves for the dependence of the lattice constant c on the oxygen content in α -titanium which crystallizes hexagonally. Based on this result, the radiographic method can be used for the quantitative determination of oxygen dissolved in α -titanium. In the paper under review, an experiment is made in this direction. The authors synthesized the lowest titanium oxides by saturating finely pulverized titanium with the calculated amount of gaseous oxygen at 500-550°. The powdery oxide preparations obtained were formed into small cylindrical columns at a pressure of

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Quantitative Determination of Oxygen in the Lowest
Titanium Oxides by Radiographic Analysis

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approximately 8000 kg/cm^2 , and kept for 15 hours in a quartz tube at $1000 \pm 20^\circ$ in order to obtain a uniform distribution of oxygen in the preparations. The annealed samples ($\text{TiO}_{0.05}$ and $\text{TiO}_{0.3}$) showed a reduction in weight of from $4 \cdot 10^{-4}$ - $7 \cdot 10^{-4} \text{ g}$, which was probably caused by sublimation. The obtained preparations were light-grey at the points of rupture, and became dark on being ground fine. The composition of the preparations was determined by the method of the vacuum melt (Ref 3). The radiographic determination of the lattice constant was carried out by the method of Debye-Scherrer. In order to obtain most accurate values for the lattice constants, the asymmetric method according to Straumanis and Jevins (Ref 4) was used. One of the most important conditions for the maximum accuracy of this method is the use of powdered samples (thickness $< 0.2 \text{ mm}$). The dimensions and conditions for the taking of X-ray spectra are indicated in the paper. The composition of the preparations under discussion, and the values of the corresponding lattice constants are shown in a table. The evaluation of the radiographs showed

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that all lines of the samples with the composition $TiO_{0-0.5}$ correspond to the hexagonal, tightly packed structure of α -titanium. Beginning with the oxide $TiO_{0.5}$, a system of weak lines occurs in the radiographs which indicate a phase with variable composition on the basis of TiO . The boundary for the uniformity of solid solutions of oxygen in α -titanium lies therefore approximately at the composition $TiO_{0.48}$. A figure shows the dependence between the lattice constants c and the corresponding contents of oxygen in the lowest titanium oxides. The accuracy of the radiographic method used was ± 0.1 wt%. There are 1 figure, 1 table, and 5 references, 2 of which are Soviet.

ASSOCIATION: Institut geokhimii i analiticheskoy khimii im. V. I. Vernadskogo AN SSSR, Moskva (Institute of Geochemistry and Analytical Chemistry imeni V. I. Vernadskiy, AS USSR, Moscow)

SUBMITTED: April 24, 1958

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MS.Y-75.513 BOX 4: 1574

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[illegible]

(Series: IIS: Study, tom. 10) Extract slip inserted. 4,000 copies printed.

Resp. Ed. A.P. Vinogradov, Academician; Ed. of Publishing House: A.S. Benavisev;
Assoc. Ed. V.V. Bruzul.

REFERENCE: This book is intended for laboratory personnel concerned with gas analysis in metals.

CONCLUSION. This collection of articles is based on materials of the Commission on Analytical Chemistry of the USSR dealing with gas analysis in metals. The analytical Chemistry data can be divided into two groups: 1) the vacuum-fusion method, developed by A.M. Elyashko, and the Syrovat' scientists V. P. Zhitkovskiy and I.A. Elyashko, and 2) the method of analysis of gases in metals, developed by A.M. Elyashko, and now applicable to analysis for the analysis of gases in steel and aluminum, and now applicable to analysis for the analysis of gases in other metals. 2) The research of Z.M. Kuravova and coworkers at the Institute of Geochemistry and Analytical Chemistry (Usni V. P. Verbitskiy) at MSOR, Moscow, making it possible to evaluate the practicability and fields of application of the different analytical methods. 3) The contributions of A.M. Elyashko and coworkers in their study of thermodynamic methods for the evaluation of suitable conditions for carrying out analysis. 4) The determination of gases in metals by the sulfuric method as developed by A.M. Elyashko. 5) The spectrum isotopic method for the determination of the isotopic composition of gases in metals by the sulfuric method as developed by A.M. Elyashko and coworkers. The authors of the articles describe the Commission and review critically the different methods, describe the apparatus used, and indicate the basic trends of research. References are given at the end of the articles.

Co. 27. and T.A. Ryboz (University Polychlorinated Institute Inst. 1961)
 S.M. Little - Mrs. Polychlorinated Institute Inst. 1961, Sec. 27. 1961
 List of Allowing Elements on the Hydrogen Diffusion Rate in Steel at High
 Pressures accompanying with the Diffusion.

^x Breyer, A.H., and P.T. Call's (Orel Polytechnic Institute Lenin S.M. Kirov,
Sverdlovsk). Effect of Phase Conversions on the Hydrogen Diffusion Rate
in Steels.

[illegible]

S. A. Kiselev, A. A. Kiselev, B. P. Fedorya, and V. I. Varionov Central Scientific Research Institute of Ferrous Metallurgy, Moscow. Study of the Interaction of Gases With Metals

Platt, V. V. Mass Spectrom Method of Determining the Concentration and
Atomic Composition of Gases in Metals

17. **INTEREST OF THE UNITED STATES IN THE**

Author: V. V. Institut geokhimi i analiticheskoy khimii Lenin V. V. Yuzhakovskiy ul. 5322 - Institute of Geochemistry and Analytical Chemistry Lenin V. V. Yuzhakovskiy ul. 5322, Moscow. Evaluation of the Possibility of Determining Gases in Metals by the Groups of the Periodic System of Elements.

Malikova, Ye.D., and A.M. Surzhikova [Institute of Biochemistry and Analytical Chemistry, Acad. Sci. USSR, Moscow]; Determination of the Concentration of the Active Sites of the Enzyme by the Mercury Estimation

Method — *See* *Journal of the American Medical Association*, 1934, 43: 1000.

and to J. Mol. and to the staff of the Institute of Geochemistry and Analytical Chemistry, U.S.S.R. Academy of Sciences, Moscow, U.S.S.R.

cytes in alkaline earth metals of the distribution of
Kuryavova, Z.M., S.P. Litvinova, S.M. Vesel'yeva, and L.G. Semakova
Institute of Geochemistry and Analytical Chemistry named V.I. Vernadsky
[Institute of Geochemistry and Analytical Chemistry named V.I. Vernadsky]

For the Determination of Gases in Metals

for Vacuum Extractions

X

Dispersions, L.M. Ya.S. Makary, and Z.M. Turvintseva
Institute of Geochemistry, V.I. Vernadsky All-Union Academy of Sciences, Moscow

Use of I-Ray Diffraction Phase Analysis for the Determination of Stereoisomers

100

MAKAROV, Ye.S.; KUZNETSOV, L.M.

Crystal structure and chemical properties of lower titanium
oxides $TiO_{0.9-0.98}$. Zhur.struk. khim. 1 no.2:170-177 J1-Ag '60.
(MIRA 13:9)

1. Institut geokhimii i analiticheskoy khimii im. V.I.Vernadskogo
AN SSSR.

(Titanium oxide)

KUZNETSOV, L.N.; MAKAROV, Ye.S.; TUROVTSEVA, Z.M.

Application of X-ray structural phase-shift analysis to the
determination of gases in metals. Trudy kov.anal.khim. 10:122-128
'60. (MIRA 13:8)

1. Institut geokhimii i analiticheskoy khimii imeni V.I.Vernadskogo
AN SSSR, Moskva.

(Gases in metals)

(X-ray crystallography)

KUZNETSOV, L.M.; KIRKINSKIY, V.A.; MAKAROV, Ye.S.

Interaction of uranium dioxide with lead monoxide. Zhur. neorg.
khim. 9 no.5:1187-1196 My '64. (MIRA 17:9)

1. Institut geokhimii i analiticheskoy khimii imeni V.I.
Vernadskogo AN SSSR.

L 22732-66 EWT(d)/EWT(m)/EWT(v)/EWT(t)/EWT(k)/EWT(h)/EWT(i)/EWT(n) JD

ACC NR: AP6002900

SOURCE CODE: UR/0286/65/000/024/0063/0064

AUTHORS: Yamshchikov, S. V.; Vykhukholev, V. F.; Musiyachenko, A. S.; Osipov, V. Ya.; Kuznetsov, L. M.; Simpura, P. M.; Stebakov, Ye. S.

ORG: none

TITLE: Method for casting thin-walled parts. Class 31, No. 177050

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 24, 1965, 63-64

TOPIC TAGS: metal casting, pressure casting

ABSTRACT: This Author Certificate presents a method for casting thin-walled parts in an apparatus consisting of two chambers (for the mold and pouring crucible) in which the filling of the mold with metal takes place due to the pressure difference between the chambers (see Fig. 1). To increase the quality of the parts, the mold chamber is raised to above-atmospheric pressure during metal pouring, while the crucible chamber is pressurized above the pressure of the mold chamber.

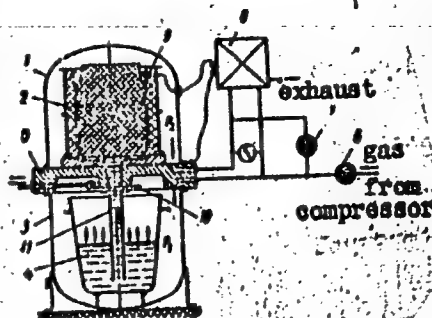
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UDC: 621.746.043.3

L 22732-66

ACC NR: AP6002900

Fig. 1. 1 - Chamber; 2 - mold;
3 - chamber; 4 - crucible;
5 - base; 6 and 7 - valves;
8 - automatic controller;
9 - transducer; 10 - cut-off;
11 - metal guide.



Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 09Feb63

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KUZNETSOV, L.M., kapitan 1-go ranga

Rescue of personnel from sunken submarines. Mor. sbor. 47 no.4:
94-96 Ap '64. (MIRA 18:7)

KUZNETSOV, L.N., starshiy prepodavatel'

Fundamental premises for designing a reed harvesting machine.
Trudy RISI no.15:171-178 '58. (MIRA 13:6)
(Reed (Botany)) (Harvesting machinery)

D'YAKOV, F.S. (Leningrad); GUSEV, S.A., inzh. (Leningrad); KUZNETSOV, L.N.,
mekhanik (Leningrad)

Improve the quality of defectoscopes. Put' i put.khoz. 8 no.6:46 '64.
(MIRA 17:9)

KRUTOV, D.N.; TERMER, V.Yu.; DOSHCHATOV, V.V.; KUZNETSOV, L.N.; GUZHOV, N.N.;
CHERNYAVSKIY, V.V.

Electronic contactless system for primary accounting. Kauch.
i rez. 23 no.9:34-37 S '64. (MIRA 17:11)

1. Yaroslavskiy proyektno-tekhnologicheskii i nauchno-issledovatel'skiy institut i Yaroslavskiy shinnyy zavod.

KUCHER, G.S.; KUZNETSOV, L.P.

Make efficient use of the land. Zemledelie 27 no.8:11-16
Ag '65. (MIRA 18:11)

1. Smolenskaya oblastnaya sel'skokhozyaystvennaya opytnaya
stantsiya.

1. KUZNETSOV, L.R.
2. USSR (600)
4. Hybridization
7. Vegetative hybridization of poultry, Priroda 42 no. 4, 1953.
9. Monthly List of Russian Accessions, Library of Congress, APRIL 1953, Uncl.

KUZNETSOV, I.R.

Vocational training in the technical school. Veterinariia 42
no.10:109-113 0 '65. (MIRA 18:10)

1. Zaveduyushchiy proizvodstvennym obucheniym Mirotского zootekhnicheskovo-veterinarnogo tekhnika.

KUZNETSOV, L.V.

Effect of light on spore formation in the fungus *Clasterosporium*
carpophilum Ad., causative agent of pustular spot in stone fruits.
Nauch.dokl.vys.shkoly;biol.nauki no.3:110-112 '58.

(MIRA 11:12)

1. Predstavlena kafedroy nizshikh rasteniy Moskovskogo gosudar-
stvennogo universiteta imeni M.V.Lomonosova.

(Stone fruit--Diseases and pests) (Light--Physiological effect)
(Fungi, Phytopathogenic)

VOLOSHIN, G.; KUZNETSOV, L.V.; PASHCHENKO, V.Z. (Tashkent)

Questions and answers. Zashch. rast. ot vred. i bol. 6 no.7:42
Jl '61. (MIRA 16:5)

1. Nachal'nik Upravleniya po zashchite rasteniy Ministerstva sel'skogo
khozyaystva UkrSSR (for Voloshin). 2. Biologo-pochvennyy fakul'tet
Moskovskogo gosudarstvennogo universiteta (for Kuznetsov).
(Plants, Protection of)

KUZNETSOV, L.V.; CHEKUNOVA, L.N.

Study of the physiological specialization of the fungus *Ustilago zeae* (Beckm.) Unger, pathogen of common corn smut. Biul. MOIP. Otd. biol. 68 no.2:99-106 Mr-Apr '63. (MIRA 17:2)

KUZNETSOV, L.V.

Viability of the fungus *Ustilago zeae* (Beckm.) Unger, causative agent of the common smut of corn. Vest. Mosk. un. Ser. 6: Biol., pochv. 18 no.2:30-39 Mr-Apr '63.

(MIRA 17:10)

1. Kafedra nizshikh rasteniy Moskovskogo universiteta.

KUZNETSOV, L. V.

"On the problem of biology and physiological specilization of corn smut."
report submitte d for Symp on Host-Parasite Relations in Plant Pathology,
Budapest, 19-22 Oct 64.

GORLENKO, M.V.; KUZNETSOV, L.V.

Some biochemical properties of the fungus *Ustilago zeae* (Beckm.)
Unger as related to the degree of the parasitism of its strains.
Dokl. AN SSSR 154 no.5:1216-1217 F'64. (MIRA 17:2)

1. Moskovskiy gosudarstvennyy universitet im. Lomonosova.
Predstavleno akademikom A.L. Kursanovym.

KUZNETSOV, L.V., inzh., red.; PORTNOY, Z.S., red.

[High-torque hydraulic engines] Vysokomomentnye gidro-
motory. Moskva, Vses. nauchno-issl. in-t pod"emno-
transportnogo mashinostroenia, 1962. 109 p.
(MIRA 17:7)

KUZNETSOV, L. V. —

"A continuous transport at the construction of the hydraulic structures," Mechanization of Labor Consuming and Heavy Work, ~~1952~~ 1951.

GORDEYEV, YA. A.; KUZNETSOV, L. V.

Gauges

Device for automatic gauging of a piston rigg lock. Avt. trakt prom.
no. 5, 1952.

Monthly List of Russian Accessions, Library of Congress, November 1952, Unclassified

KUZNETSOV, L. V.

Loading and Unloading

Conference for overall mechanization of loading-discharging and conveyance work. Mekh. trud. rab. 6 no. 4 April 1952.

9. Monthly List of Russian Accessions. Library of Congress, August 1952, UNCL.

1. KUZNETSOV, L. V., Eng.
2. USSR (600)
4. Material Handling
7. Ways of improving the mechanisation of loading and transporting work. Mekh trud
rab. No. 12 1952.
9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

SPIVAKOVSKIY, A.O., professor; KHUTIKOV, I.P., dotsent; KUZNETSOV, L.V., in-
zhener.

Basic tasks of the development of hoisting and transporting machine build-
ing, Vent.mash. 33 no.6:16-20 Je '53. (MLRA 6:6)
(Hoisting machinery)

KUZNETSOV, LEONID VASIL'YEVICH

BARAT, Iosif Yefimovich, kandidat tekhnicheskikh nauk; BARSHEV, Vladimir Nikolayevich, inzhener; BOGUSLAVSKIY, Vladimir Konstantinovich, kandidat tekhnicheskikh nauk; D'YACHKOV, Vladimir Konstantinovich, kandidat tekhnicheskikh nauk; KORNEYEV, Grigoriy Kuz'mich, kandidat tekhnicheskikh nauk; KUZNETSOV, Leonid Vasil'yevich, inzhener; MUKLMR, Abram Grigor'yevich, kandidat tekhnicheskikh nauk; NIKOLAYEVSKIY, Georgiy Matveyevich, kandidat tekhnicheskikh nauk; NIKONOV, German Pavlovich, inzhener; OLEKHNovich, Angelina Iosifovna, inzhener; SNGAL', Il'ya Samoylovich, kandidat tekhnicheskikh nauk; SPITSINA, Irina Osipovna, kandidat tekhnicheskikh nauk; GORA, V.Ye., inzhener, retsentsent; SPIVAKOVSKIY, A.O., professor, redaktor; BURMISTROV, P.I., kandidat tekhnicheskikh nauk, redaktor; MARTENS, S.L., inzhener, redaktor; MATVEYEVA, Ye.N., tekhnicheskiiy redaktor; TIKHANOV, A.Ya., tekhnicheskiiy redaktor

[Present-day hoisting and conveying technology in foreign countries; a survey of the literature] Sovremennaya pod'emno-transportnaya tekhnika za rubezhom; obzor literatury. Pod red. A.O.Spivakovskogo i dr. Moskva, Gos. nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1957. 306 p. (MLRA 10:6)

1. Chlen-korrespondent Akademii nauk SSSR (for Spivakovskii)
(Hoisting machinery)

SOV/28-59-2-3/26

25(5)

AUTHOR:

Kuznetsov, L.V., Engineer

TITLE:

Inter-Branch Normalization in Machine Building in 1959.
(Mezhotraslevaya normalizatsiya v mashinostroyenii v 1959 godu)

PERIODICAL:

Standartizatsiya, 1959, Nr 2, pp 12-14 (USSR)

ABSTRACT:

The Committee of Standards, Measures and Measuring Equipment together with the newly established Vsesoyuznyy nauchno-issledovatel'skiy institut po normalizatsii v mashinostroyenii (The All-Union Scientific Research Institute on Normalization in the Machine Building Industry) (VNIINMASH) and with local organizations for standardization have undertaken to set up inter-branch standard specifications for components, fittings, units and other widely-used parts and tools. These specifications will replace all local ones introduced by various ministries in plants. The aim of normalization is to establish complete interchangeability of parts and units for the same type of machines manufactured in different plants. The author describes the task already done in this field

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Inter-Branch Normalization in Machine Building in 1959

and the general lines of further development for 1959 as determined by the VNIINMASH. There is 1 diagram and 1 table.

ASSOCIATION: VNIINMASH

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Kuznetsov, L.V.

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28(5)

AUTHOR: None given

TITLE: Seminar "The Normalization and Specialization on
Parts in Machine-Building".*

PERIODICAL: Standartizatsiya, 1959, Nr 12, pp 7-15 (USSR)

ABSTRACT:

The seminar was organized by the Moskovskiy dom nauchno-tekhnicheskoy propagandy im. Dzerzhinskogo (The Moscow House of Scientific and Technical Propaganda imeni Dzerzhinskiy) and Komitet standartov, mer i izmeritel'nykh priborov (The Committee of Standards, Measures and Measuring Devices). The purpose was to generalize the experience of sovnarkhozes, industry, and research institutes in specialization and cooperation in the machine-building industry and to convey this experience to the industry technicians. More than 300 delegates from organizations and plants were present and 18 reports were read on the problems of specialization and cooperation of the plants and the nor-

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Seminar "The Normalization and Specialization on Parts in Machine-Building".

malization of the most important machine component units and parts. The article briefly gives the contents of several reports. In the report by V.V. Tkachenko "On the Part of Standardization and Normalization in the Progress of Specialization and Cooperation in the Industry", it was said that about 250 standards for types and basic parameters of machines, apparatus and instruments are already in force and 200 more will be worked out in the course of several years. The parametrical standards will unify the machine components and create the prerequisites for the organization of specialized production. There exist three basic normalization trends: 1) General normalization i.e. of parts and component units of general use and of technologic equipment common for different industry branches; 2) Branch normalization, i.e. of equipment specific for separate industry branches; and 3) Plant (local) normalization

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Seminar "The Normalization and Specialization on Parts in Machine-Building".

limiting the number of types, dimensions and technical documents within single plants. Much work is yet ahead in the standardization of production process control systems, units and measuring components (pick-ups, transmitters, and servomechanisms). The extensive use of radio and electronic parts requires standardization of semiconductor diodes and triodes, resistances, small synthetic material capacitors, and miniature electronic tubes. Centralized production can be recommended for the following: 1) Torque transmitting parts and units (reducers, gears, keys, shafts, clutches, etc.); 2) Fasteners; 3) Pipe fittings, hydraulic and pneumatic drives and lubrication equipment; 4) Regulating equipment (brakes, springs); 5) Electric switches, protective devices, starters; 6) Radio equipment (capacitors, resistors, panels, transformers,

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electrovacuum tubes, etc.); 7) Instrument parts beginning with sensitive elements and ending with casings. The report by L.V. Kuznetsov, "The Tasks and the Most Important Work in the Field of Normalization of Machine Parts and Component Units", included the following facts. The specialization level in machine-building is still low. Only the most widely used standard tools are produced basically at specialized plants, but attachments, dies and other technological equipment are produced by every machine-building plant. The making of clutches, bearings and other common parts is not specialized. The goals set by the Seven-Year-Plan require standardized technical documents - "normali" they are a prerequisite of specialized production and cooperation. The development of the "mashinostroitel'-nyye normali" (or "MN") (machine-building standards), was organized in 1958 for the first time by the Committee

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Seminar "The Normalization and Specialization on Parts in Machine-Building".

of Standards, Measures and Measuring Devices. More than 200 are issued now. The normalization plans for the near future include mass production, which is already covered by standards but without fixed work dimensions. One example of normalization results is that the number of "type-sizes" of round rubber rings produced by only seven branches was 550 and has now been reduced to 94. The unification, normalization and standardization plan is completed for the chemical, petrochemical, petroleum refining and related industries. Of the most extensively used parts of materials-handling equipment, supporting rollers of band conveyers, plate-type conveyer chains, pulleys, tackles and stops are planned for normalization in 1960. The report by S.I. Semin, "Specialization and Cooperation in Machine-Building" outlined the general principles of the planned

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specialization and cooperation and the economic advantages of specialization, i.e. low production costs (20-30 times lower than at non-specialized plants). The cooperation is developing with the following trends:

- a) elimination of long-distance transportation and of unprofitable cooperation;
- b) more complete utilization of equipment at some plants to assist other plants;
- c) expansion of specialized workshops and plants equipped with modern techniques to supply their own economic administration region as well as the neighbouring regions;
- c) giving the local administrations and sov-narkhozes more authority for establishing cooperation between plants.

In the report by G.I. Samborskiy, "Specialization - the Paramount Prerequisite of All-Embracing Mechanization and Automation of Production", a general outline of the specialization principles was made. He emphasized that automation requires a radical

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change of the existing technology and that a design plan for all parts and component units of automatic control devices ought to be developed without delay, and a catalog of automatic lines and devices already being produced should be published. He also stressed the importance of the production of normalized (standard) automatic equipment and of the "agregatnyy method" (replaceable units) that will cut to a minimum the time needed for changes for production of new designs. M.V. Gazaliyev - in his report on the economic effect of specialization for production of parts - spoke of the general principles of such specialization. He stressed the economic importance of specialization and mentioned the fact that there are now 1350 plants producing standard fasteners, but 18 only of them are specialized for this production. S.A. Tilles

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made a report "On the Technico-Economic Effect of Normalization", in which it was mentioned that VNIINMASH has developed and prepared for publication the rules for the calculation methods (selection of the optimum series and power exponents) with practical calculation examples and data facilitating the necessary calculation work. To determine the required normalization, a nomenclature of machine parts and component units is needed, and the Kafedra detaley mashin (The Machine Parts Chair) of Moskovskiy stankoinstrumental'nyy institut (Moscow Machine Tool and Tool Institute) developed such a nomenclature for 164 machines which are "characteristic" for different machine-building industry branches. So-called "economic characteristics" of technologic processes can be set up and the minimum production program can be determined (graphically or analytically) for which the application of a certain process variation would be expedient. The

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production zones could then be combined into groups in which the process variation is suitable. The following facts were stated in the report by Ye.S. Yampol'skiy, "Parts Specialization in the Moscow Sov-narkhoz". Thirty seven small plants producing fasteners have been closed in Moscow in the course of plant specialization since the second half of 1959; only two plants instead of the former 25 are producing metal electrodes; cutting tools will now be manufactured at only 4 plants instead of 58; and 3 plants will produce die blocks for 25 plants. Centralized production of drills, threading taps, milling cutters and threading dies is under preparation. "USP" (for Universal'no-Sbornyye Prispobleniya, or "universal composite attachments") attachments are produced at a group of plants and used extensively at the Moscow

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plants. A number of mechanical repair shops of plants are specialized for manufacturing 25 spare parts for 26 types of the most common metal-cutting machines. Centralized production of forged and stamped general-use parts such as stepped shafts, arbors, eye bolts, clutches, bushings, is under preparation. Specialization for the production of gears is near completion. The present nomenclature of bevel gears and gears with hubs will be reduced by half, and the nomenclature of flat gears nine times. Automatic lines will be used for producing gears in large quantities. Apart from specialization for production of general-use parts, Mosgorsovnarkhoz (Moscow Sovnarkhoz) organizes specialization for parts within separate industries. One example is that the Avtozavod im. Likhacheva (Auto-mobile Plant imeni Likhachev) will obtain cardan shafts from a new plant. Rear axles, thin-wall bearing bush-

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ings and some other parts will be produced for the Plant imeni Likhachev by other, specialized, plants. Large specialization work is in progress at a group of Moscow machine tool plants. Central production will be organized for power heads, spindle boxes, rotary tables, welded machine beds, electric cabinets, etc. In the radio and instrument industry, parts and units have been normalized (made standard) and there are only 84 left (of the former 169). The production of these 84 items will be centralized. In the report by N.M. Belov, "Part Specialization in Machine-Building in the Sverdlovsk Economic Region", it was mentioned that the manufacturing of small metal products, electrodes, fittings, standard cutting tools, gear reducers, spare parts for drilling, mining and other equipment is being centralized. Only two plants, Atigskiy and Krasnoural'skiy, will make small metal

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products (instead of the present 46 plants). The first part of the Krasnoural'skiy Plant (bolt shop, pickling and drawing shop) started work in 1959. The automation abruptly raised the productivity and reduced the production costs. The estimated annual saving is 25.5 million rubles through the increase of productivity and 4.5 million through reduced consumption of metal. The making of fittings at 50 plants will stop. Standard fittings of malleable iron will be produced by one mechanical plant, with an annual output of 2000 tons. Presently, 124 plants are making cutting tools. They will be made by 14 plants in specially equipped shops. The annual saving expected from this measure is 30 million rubles. The Sovnarkhoz will continue the specialization and separate the making of parts and component units not suitable for some plants into independent separate enterprises. Uneco-

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nomical cooperation of plants will be liquidated by finding internal production possibilities at the plants and intensive standardization and normalization. A.V. Dello, in his report "Organization of Standardization and Normalization Work for Pipe Fittings", stated the following. Of the total produced in 1959, 73.6% of types and parameters were standardized. It is planned to issue 42 new standards and revise 5 during the period 1959-1965. Standards for the normal series of the basic pipe fittings are of particular importance as they are produced by more than 100 plants in different regions of the USSR. In 1960, standards have to be worked out for steel flange valves for a pressure of 40 kg/cm² and a 40-200 mm diameter, cast iron parallel gate valves with fixed spindle, etc. Development of 10 "normal" standards is envisaged by the plan of

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"interbranch normalization" for water main fittings. At the present time, there is one only interbranch "normal" for fittings - "Fittings, Pipeline. Classification of Fittings by the Tightness of Sealing". There are 205 "otraslevyye normali" ("branch normal's") Developments of "normals" for 24 themes is planned for the period 1959-1965.

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28(1)
25(6)

S/028/60/000/05/001/027
D044/D006

AUTHOR: Kuznetsov, I.V.

TITLE: Standardization Work in the Machine-Building Industry Must be Considerably Expanded

PERIODICAL: Standartizatsiya, 1960, Nr 5, pp 3-5 (USSR)

ABSTRACT: The article is concerned with standardization problems in the Soviet machine-building industry. Standardization and normalization workers face two main tasks: 1) within the next two years, they must work out standards for instruments, devices, stamp dies, and other gear in the machine-building industry; 2) within the next 3 to 4 years, they are to work out standards for the common units and parts of the machines themselves as well as for the most important means of mechanization and automation of mass production. By 1960, the Byuro vzaimozamenyayemosti (Office of Interchangeability) will have standardized the calibers of smooth and threaded clamps as well as of those for checking key and splined joints. By 1961, the standardization of most auxiliary gear for milling, boring, polishing, gear-cutting, and broaching machines as well as for turning and boring-and-turning

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Standardization Work in the Machine-Building Industry Must be Considerably Expanded

lathes will be finished - mostly by the Orgstankinprom. However, such organizations as the NIITAvtoprom, NIITraktorssel'khoz mash, ENIMS, and NIAT show little interest in this activity and ought to do more in the field of interbranch standardization. The same is true of the Spetsial'noye konstruktorskoye byuro po standartizatsii i normalizatsii TsNIIKA (Special Design Office for Standardization and Normalization of the TsNIIKA). Among the organizations which have failed to fulfill their obligations in standardization work are the Tsentral'noye konstruktorskoye byuro armaturostroyeniya (Central Design Office for the Manufacture of Fittings), the Vsesoyuznyy nauchno-issledovatel'skiy institut kislorodnogo mashinostroyeniya (All-Union Scientific-Research Institute of Oxygen Machine Construction), and Orgstankinprom. The Ministerstva Stroitel'stva RSFSR i USSR (Construction Ministries of the RSFSR and the Ukrainian SSR) and the Gosudarstvennyy komitet po avtomatizatsii i mashinostroyeniyu (State Committee for Automation and Machine Construction) failed to include

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Standardization Work in the Machine-Building Industry Must be Considerably Expanded

the planned standardization program and its financing in the plans for appropriate organizations. The Komitet standartov, mer i izmeritel'nykh priborov (Committee of Standards, Measures, and Measuring Instruments) has confirmed a standardization program plan for the equipment, machinery, and its units and parts for the chemical, oil-chemical, oil-processing and kindred industries. Standartgiz has recently published several hundred standards for the machine-building industry. During 1960, a number of standards prepared at the end of 1959 is scheduled for publication. Owing to this, sovmarkhozes will be able to organize centralized production, in particular that of the cutting, auxiliary, and measuring tools for which the bulk of standards has already been worked out.

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KUZNETSOV, L.V.; NIKONOV, K.D.

In technical committees of the International Standardization
Organization. Standartizatsiia 24 no.4:59 Ap '60. (MIRA 13:9)
(Standardization)

RIVKIN, S.A. (Kiyov); KUZNETSOV, L.V. (Kiyev)

Experimental investigation of single-block reinforced concrete
foundations under columns. Osn. fund. i mekh. grun. 6 no.4:
19-22 '64. (MIRA 17:12)

~~KUZNETSOV, M.~~

Suspended bucket elevator in warehouses. Muk.-elev.prom 22 no.9:30-31
S '56. (MLRA 10:8)

1. Direktor Shemonaikhinskoy realizatsionnoy bazy.
(Elevators)

MAYSYUK, B.; KUZNETSOV, M.

Improved machinery at the Kostroma Groat Mill. Mukalev.prom. 27
no.5:889 My '61. (MIRA 14:6)

1. Kostromskoy krupozavod No.13. 2. Direktor Kostromskogo
krupozavoda No. 13 (for Maysyuk). 3. Glavnyy inzh. Kostrom-
skogo krupozavoda No. 13 (for Kuznetsov).
(Kostroma—Grain-milling machinery)

REGIDA, P.; MEL'NIKOV, M.; KUZNETSOV, M.

Producing several types of milled corn products at low-capacity mills.
Muk.-elev. prom. 28 no.8:15-17 Ag '62. (MIRA 17:2)

1. Vserossiyskoye ob'yedineniye khleboproduktov.

KUZNETSOV, M.

According to a unified plan. Grazhd.av. 19 no.9:8 S '62.

(MIRA 16:1)

1. Nachal'nik otдела aviatsii spetsprimeneniya Ukrainskogo
upravleniya Grazhdanskogo vozdushnogo flota.

(Ukraine--Aeronautics in agriculture)

REGIDA, P.; MEL'NIKOV, M.; KUZNETSOV, M.

Separating corn germs at feed mills. Muk.-elev. prom. 28
no.10:8 0 '62. (MIRA 16:1)

1. Vserossiyskoye ob"yedineniye khleboproduktov.
(Feed mills) (Corn (Maize))

KUZNETSOV, M.

Low-volume spraying of fields in the Ukraine. Zashch. rast. ot vred. i
bcl. 10 no. 4:11 '65. ' (MIRA 18:6)

1. Nachal'nik otdela spetsprimeneniya Ukrainского upravleniya
grazhdanskoy aviatsii, Kiev.

KUZNETSOV, M. A. (Veterinary Surgeon, Shchigrovsk Raion, Kursk Oblast').

"Therapeutic and prophylactic method for the treatment of edema in piglets."

Veterinariya, Vol. 38, No. 3, 1961, p. 40.

KUZNETSOV, M. A., (Veterinary Surgeon, Shchigrovsk Raion, Kursk Oblast')

The native biomyces - an effective remedy for swine hepatitis

Veterinariya vol.38, no. 10, October 1961, pp. 81-89.

IVANKOV, Petr Timofeyevich; KULIKOV, I.V., retsenzents; KUZNETSOV,
M.A., retsenzents; PLESKO, Ye.P., red. izd-va; VDOVINA, V.M.,
tekhn. red.

[Technical measurements and the fundamentals of metrology]
Tekhnicheskie izmereniya s osnovami metrologii. Moskva, Gos-
lesbumizdat, 1963. 256 p. (MIRA 16:7)
(Mensuration) (Measuring instruments)

KUZNETSOV, P.V.; KUZNETSOV, M.A.

Improve the level of economic work in telecommunication. Vest.
svyazi 23 no.9:11-12 S '63. (MIRA 16:10)

1. Zamestitel' nachal'nika Planovo-finansovogo upravleniya
Ministerstva svyazi SSSR (for Kuznetsov).

SRAPIONOV, Onik Sergeyevich; YEREMINA, Zinaida Petrovna;
SVERKALOVA, Aleksandra Pavlovna; KUZNETSOV, M.A., otv.red.;
SAKHAROVA, Ye.D., red.

[Business accounting within communication system enterprises]
Vnutriproizvodstvennyi khozraschet v predpriatiakh sviazi.
Moskva, Izd-vo "Sviaz'" 1964. 36 p. (MIRA 17:5)

KUZNETSOV, M.A., mladshiy nauchnyy sotrudnik

Glacioactinometric observations at Mirnyy. Inform. biul. Sov.
antark. eksp. no.5:35-38 '59. (MIRA 12:10)

1. Institut merslotovedeniya Akademii nauk SSSR.
(Antarctic regions--Solar radiation)
(Antarctic regions--Thawing)

KUZNETSOV, M.A.

"White darkness". Inform. biul. Sov. antark. eksp. no.8:40-41
'59. (MIRA 13:3)

(Antarctic regions--Meteorological optics)

KUZNETSOV, M.A., mladshiy nauchnyy sotrudnik

Automatic setting of the wetting level. Inform.biul.Sov.
antark.eksp. no.13:9-11 '59. (MIRA 13:8)

1. Institut merslotovedeniya Akademii nauk.
(Snow)

KUZNETSOV, M.A.

Summer on the Pravda Coast. Inform.biul.Sov.antark.eksp.
no.13:44-47 '59. (MIRA 13:8)
(Mirnyy region, Antarctica--Summer)

KUZNET'SOV, M. A.

507/2616

[illegible]

Beep, Md.: V. F. Proctor; Bacterial Ward: L. S. Salachuk, A. A. Gfro. P. A. Gordtschak
(Copy to Beep, Md.): J. M. Bolds, L. G. Epizakoy, A. A. Kitzler, J. S. Korte-
bert, W. F. Larrow, J. V. Maloney, A. J. O'S., J. J. Forsyth, and B. O. Follmer;
Tobac, Md.: L. S. Drayakshin.

NOTES: This collection of articles is intended for geographers and geographers, particularly those interested in the problems of the Arctic and Antarctic.

NOTES: This publication of the *Arctic and Antarctic Scientific Society*, in addition to the articles in this volume, contains a number of other papers, including articles on the water temperature in the Arctic Basin, the tides of Arctic seas, the pressure of Arctic epiphyse and subglacial ice, radiocesium measurements of temperature, the determination of the thickness by diurnal electromagnetic methods, and magnetic activity in relation to geophysical temperature and latitude. In parentheses are mentioned, in parentheses, the authors of the articles.

Burkholderia, L., Germans of Winter Dipper Lower Anticipation in the Amile 31
Polymer, S.V., Nature's Slips and the Intensity of the Katobella Viral 48

Callaness, M.J., and V.V. Prolov. On the Errors of Temperature Measurements
Made by Endotherms

Yakovlev, G.I. Snow Cover on the Drilling Zone of the Central Arctic

McLochry, G.T. and H.V. Chivers. Use of the Dipole Electromagnets
—Method for Determining the Thickness of Sea Ice

Phys. 141C, 1.2 Dependence of the mean level of Neptunium activity on latitude and longitude

Outline, G.H. Extraction of Ice Information by Statistical Processing of Aerial -Photography Data

Phyllis, J.D., Conference on the Development of the Production Process of East Africa

~~Reactor, J.P. 1994 Conditions in the Chalmers River and Chalmers Bay in the Spring of 1998~~

~~Experiments~~ The Main Cause of the Regular Albedo Decrease in a Melting Snow Cover

Figure 1.3 Evaluation of the Accuracy of Determining the Deviation of Metro Detection Products by Means of Altimetry

Yul'determ. Tsak. and Ye. S. Iordina. Magnetic Variations Within the Main Aurora Zone

Goverth, L.S. On the life of a "Pans" Joe." 1900.
 AVAILABLE: Library of Congress

Case 4/1

34-444-1031
7/4/61

KOTLYAKOV, V.M.; KUZNETSOV, M.A.; MAKAROV, N.M.; AVSYUK, G.A., otv.red.;
OGANOVSKIY, P.N., red.

[Second Antarctic Continental Expedition; snow cover] Vtoraia
Kontinental'naia Antarkticheskaya ekspeditsiia; snezhnyi pokrov.
Moskva. (Materialy gliatsiologicheskikh issledovani). No.3.
[Laboratory studies in Mirnyy; station observations at Pionerskaya]
Laboratornye issledovaniia v Mirnom; statsionarnye issledovaniia
na Pionerskoi. 1960. 150 p.

(MIRA 14:3)

1. Akademiya nauk SSSR. Institut geografii.
(Antarctic regions--Snow)

KOTLYAKOV, V.M.; KUZNETSOV, M.A.; AVSTUK, G.A., otv.red.; OBANOVSKIY,
P.N., red.

[Second Antarctic Continental Expedition; snow cover] Vtoraya
Kontinental'naya Antarkticheskaya ekspeditsiya; snezhnyi pokrov.
Moskva. (Materialy glatsiologicheskikh issledovaniy). No.1.
[Station observations near Mirnyy] Stationsarye issledovaniya
v raione Mirnogo. 1960. 167 p.

(MIRA 14:3)

1. Akademiya nauk SSSR. Institut geografii.
(Antarctic regions--Snow)

KOTLYAKOV, V.M.; KUZNETSOV, M.A.; AVSTUK, G.A., otv.red.; OBANOVSKIY,
P.N., red.

[Second Antarctic Continental Expedition; snow cover] Vtoraya
Kontinental'naya Antarkticheskaya ekspeditsiya; sneghnyy pokrov.
Moskva. (Materialy glatsiologicheskikh issledovaniy). No.2.
[Field studies along the littoral strip, on Shackleton shelf
ice and on Drigal'skiy Island] Polevye issledovaniya v beregovoy
polose, na shel'fovom lednike Shekltona i na ostrove Drigal'skogo.
1960. 172 p. (MIRA 1413)

1. Akademiya nauk SSSR. Institut geografii.
(Antarctic regions--Snow)

KUZNETSOV, M.A.

Main cause of regular decrease of the albedo of the melting snow
cover. Probl.Arkt.i Antarkt. no.3:112-115 '60. (MIRA 13:9)
(Albedo) (Snow)

S/169/61/000/010/016/053
D228/D304

AUTHOR: Kuznetsov, M. A.

TITLE: The barkhan transfer of snow in the wind belt of Eastern Antarctica

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 10, 1961, 51,
abstract 10V344 (V sb. Sov. antarkt. ekspeditsiya, 10,
L., Morsk. transport, 1960, 175-179)

TEXT: Observations in the vicinity of the Mirnyy observatory showed that in all cases the formation and movement of snow barkhans occurs at the time of the weather characteristic of secondary fronts in the rear of cyclones during E.S.E. or S.E. winds, whose velocity exceeds 20 m/sec., when the air temperature varies from -10° to -16° and -18° . The process of the formation and destruction of barkhans is described in detail. Thus, when the wind velocity is 5 - 7 m/sec., the falling snow is swept into flat, immobile patches; then, during a wind of 8 - 10 m/sec., a

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The barkhan transfer...

moving barkhan--i.e., a crest, a train, and a steep scree on the leeward side--is formed. At a wind speed of 13 - 15 m/sec., the snow barchans acquire the shape characteristic of sand barchans--with a width of 5 - 8 m for the front part, with a train length of 10 - 15 m, with a ridge height of 30 - 50 m, and with a scree length of 1.0 - 1.5 m. The rate of barchan movement comprises from 1.5 to 2.5 m/hr. The barchans begin to disperse at a wind velocity of 18 m/sec. and more. The snow's hardness in a barchan increases from the crest towards the end of the train, which bears traces of deflation in consequence of freezing. The number and size of the barchans is closely connected with the snowfall intensity and wind speed. Snow consisting of acicular-shaped crystals or continuous disc-like plates, which fall from middle- and upper-layer clouds and which possess considerable strength and a capacity for sliding, is subjected to interspersions. The crystals do not rise in the air even during a 15 m/sec. wind. This is explained by the fact that, owing to the porosity of the mass and the strength of the crystals, the wind pressure spreads deeply--setting in motion, not the individual crystals lying on

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The barkhan transfer...

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the surface, but a whole layer of them--as well as by the fact that the freezing of crystals increases the resistance to the lifting power of the wind. The absence of barkhan transfer from June to October is explained by the increased velocity of the effluent wind and by the non-uniformity of the surface. Comparison of the conditions under which barkhan transportation was observed at the Pionerskaya station and at Mirnyy showed that the formation and all stages of development of barchans occurred in the same limits for the effluent wind's velocity and for the recast snow's composition. Effluent winds are always strong in the wind belt's central zone (1000 - 1600 m below sea-level). According to P. A. Shumskiy's data (March 1957), barchans are observed for 315 km along the Mirnyy-Pionerskaya profile, i.e., in the southern zone of the wind belt. Barchans were observed over 30 km of the same profile in the zone's northern belt in April 1957. If the central zone of the wind belt is excluded, then, according to the degree of movement away from the coast to the interior of Antarctica, the period of barkhan transportation increases from 2.5 - 3 months on the seaboard--where, during normal weather conditions it lasts from the second half of March to June--

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The barkhan transfer...

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to 7 - 8 months in the wind belt's southern zone. 1 reference. [Ab-
stracter's note: Complete translation.]

✓

Card 4/4

KUZNETSOV, M.A., mladshiy nauchnyy sotrudnik

Sculpturesque forms of the surface of ice in Antarctica and their origin. Inform. biul. Sov. antark. eksp. no.17:5-8 '60.

(MIRA 13:12)

1. Vtoraya kontinental'naya antarkticheskaya ekspeditsiya.
(Antarctic regions---Ice)

KUZNETSOV, M.A., mladshiy nauchnyy sotrudnik

Device for handling ice blocks. Inform.biul.Sov.antark.
eksp. no.18:32-35 '60. (MIRA 13:7)

1. Vtoraya kontinental'naya ekspeditsiya.
(Glaciological research)

KUZNETSOV, M.A.

"Curiosity" of Adelle penguins. Inform. biul. Sov. antark. eksp.
no.22:61-63 '60. (MIRA 14:5)
..... (Antarctic regions---Penguins)

KOTLYAKOV, V.M., mladshiy nauchnyy sotrudnik; KUZNETSOV, M.A., mladshiy
nauchnyy sotrudnik

Results of the study of crystalline precipitation forms in the Mirnyy
region. Inform. biul. Sov. antark. eksp. no.24;21-25 '60.

(MIRA 14:5)

1. Vtoraya kontinental'naya ekspeditsiya.
(Ice crystals)

KUZNETSOV, M.A.

The origin of snow igloos. Let. Sev. 4:239-244 '64.

(MIRA 18:3)

1. Leningradskoye otdeleniye Vsesoyuznogo ordena Lenina proyektno-izyskatel'skogo i nauchno-issledovatel'skogo instituta imeni S.Ya. Zhuka.

KUZNETSOV, Mikhail Artem'yevich

[Under the roofs of Mirnyy] Pod kryshami mirnogo. Odessa,
Izd-vo Transport, 1964. 269 p. (MIRA 18:9)

KUZNETSOV, M.A., inzhener (st. Altayskaya)

Current repair of track for gulleys. Zhel.dor.transp. 37 no.1:
81-83 Ja '56. (MLRA 9:3)

1. Zamestitel' nachal'nika distantsei puti.
(Railroads--Maintenance and repair)

RUSSIAN BOOK EXPLANATION 807/350

Zvezd (Star) Metallurgy, Reproduction

Metallurgy v ser'ye na tekhnicheskii program (Metallurgy in the Field for Technical Programs) [Moscow] Izdatel'stvo Mashinostroyeniya 1959 96 p. 3,000 copies printed.

Special Note: To: V. Koshlov, P.M. Sorokov, and I.A. Polynskii; Ed.: E.A. Mikhaylov; Tech. Ed.: E.A. Shadrin.

NOTE: This book is intended for technical personnel interested in metallurgical processes.

CONTENTS: The book contains 9 articles dealing with technical improvements developed and implemented by members of the Plant Metallurgy Department of the Machine-Building Institute of the Academy of Sciences of the USSR (Scientific and Technical Society for Ferrous Metallurgy). Individual articles discuss techniques in limestone sintering, blast-furnace charges, intermetallics of cast-iron processes, ingot rolling, and improvements in roll production.

— Improving the Quality of Rails —
— Rolling of Reinforcing Steel —

Karpov, A. (Engineer). Heat Treatment of Rails

Khramov, I. (Engineer). A New Steel for Rolling Tia Plate

Polonsky, B. (Manager of Heat-Engineering Laboratory). Improvements in the Design of Reciprocating Rolling Tia

VIENNA: Library of Congress (DT705.5)

1959-79

25/000/000
11-15-60

KUZNETSOV, M.

BERMANT, Ye.; ZHORNIK, A.; KUZNETSOV, M.

Reducing the idle time of railway cars in a pile-driving
workshop. Biul. nauch. inform.: trud i zar. plata 3 no. 11:38-
40 '60. (MIRA 14:1)

(Zaporozh'ye—Piling(Civil engineering))
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